Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-15.   (canceled)

16. (currently amended) A method of operation of a mobile node within [[In]] a communication system supporting mobile IP, wherein [[a]] the mobile node is operable to connect to a network infrastructure via one or more gateway routers, [[a]] the method comprising the mobile node performing steps of:

determining that the mobile node [[it]] is attached to a mobile gateway router associated with a mobile network; and

maintaining a binding update list of one or more correspondent nodes that have received a binding update corresponding to the mobile node has been communicating with,

wherein the mobile node maintains the binding update list when the mobile node is in a home network of the mobile node.

Claims 17-18. (canceled)

19. (original) The method of claim 16, wherein the mobile node comprises a mobile router.

20. (original) The method of claim 16, wherein the mobile node comprises a mobile network node detached from a mobile network.

Claims 21–23. (canceled)

24.   (previously presented) The method of claim 38 wherein the care of address comprises at least one of a home address of a) the mobile gateway router and b) the mobile node.

25.   (previously presented)The method of claim 38 wherein the care of address comprises an address in a home subnet of the mobile node.

26.   (previously presented)The method of claim 16 wherein the mobile node comprises an IP-addressable device.

27.   (previously presented)The method of claim 16, further comprising sending a binding update to the one or more correspondent nodes.

28.   (previously presented) The method of claim 27 wherein the binding update is generated in response to a tunneled packet from at least one of a) the one or more correspondent nodes, b) the mobile gateway router, and c) a home agent of the mobile node.

29.   (previously presented) The method of claim 16 further comprising identifying that a packet was received from the one or more correspondent nodes without traversing ~~the~~a home agent.

30.   (currently amended) The method of claim 16, further comprising:
        detaching from the mobile gateway router;
        attaching to a ~~second mobile~~ gateway router in a fixed site in the communication system; and
        sending a binding update to the one or more correspondent nodes that <u>are in the binding list of</u> the mobile node ~~has been communicating with~~ to inform the one or more correspondent nodes of the mobile node's attachment to the fixed site.

31.   (previously presented)The method of claim 38 wherein the binding update is sent to the one or more correspondent nodes identified in the binding update list.

32.   (previously presented) The method of claim 31 wherein the binding update comprises a care of address in a subnet that the mobile node is currently attached to.

33.   (previously presented) The method of claim 31 wherein the binding update comprises a care of address of a home address of the mobile gateway router to which the mobile is attached.

34.   (currently amended)   The method of claim 16, further comprising:

detaching from the mobile gateway router;

attaching to a second mobile gateway router in a second mobile network in the communication system; and

sending a binding update to the one or more correspondent nodes that ~~are in the binding list of the mobile node~~ the mobile node has been communicating with to inform the one or more correspondent nodes of the mobile node's attachment to the second mobile network.

35.   (previously presented) The method of claim 34 wherein the binding update is sent to the one or more correspondent nodes identified in the binding update list.

36.   (previously presented) The method of claim 35 wherein the binding update comprises a care of address in a subnet that the mobile node is currently attached to.

37.   (previously presented) The method of claim 35 wherein the binding update comprises a care of address of a home address of the mobile gateway router to which the mobile is attached.

38.   (currently amended)   The method of claim 16 further comprising ~~the steps of~~

when the mobile node has moved away from the home network:

obtaining a care of address comprising the home address of the mobile gateway router; and

sending the care-of address to a home agent of the mobile node. ~~; and~~

39.   (previously presented) The method of claim 38, further comprising sending a binding update to the one or more correspondent nodes.

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40.   (previously presented) The method of claim 39 wherein the binding update is generated in response to a tunneled packet from at least one of a) the one or more correspondent nodes, b) the mobile gateway router, and c) a home agent of the mobile node.

41.   (new) A method of operation of a mobile node within a communication system supporting mobile IP, wherein the mobile node is operable to connect to a network infrastructure via one or more gateway routers, the method comprising:

detaching from a home network of the mobile node;

determining one or more correspondent nodes that have received a binding update corresponding to the mobile node, where the determination is made prior to receiving any packets from the correspondent node; and

sending a binding update to the one or more correspondent nodes to inform the one or more correspondent nodes of a mobile new care-of address.

42.   (new) The method of claim 41, wherein the step of determining one or more correspondent nodes comprises using a binding list which is maintained by the mobile node when the mobile node is in the home network.

43.   (new) The method of claim 42, wherein the binding list comprises one or more correspondent nodes that have received a binding update mapping an address corresponding to the mobile node to a care of address.

44.   (new) The method of claim 43, where in the care of address comprises an address corresponding to the mobile gateway router.